

Figs. 13, 14. *Ephydra hians* Say, full-grown larvæ. $\times 4$.

Fig. 15. *Ephydra hians* Say, pupæ. $\times 7$.

Fig. 16. *Ephydra hians* Say, puparia. $\times 3$.

Fig. 17. *Ephydra hians* Say, ventral anterior dehiscent portion of puparium, containing the larval mouthparts (see arrow, Fig. 16).

Fig. 18. *Ephydra hians* Say, adult ♀, $\times 8$.

TWO WESTERN SPECIES OF EPHYDRA.

BY J. M. ALDRICH,

MOSCOW, IDAHO.

As a completion of the preceding article I append the description of a new species of *Ephydra* that I know only in the adult stage, which was collected while investigating the shores of Great Salt Lake last summer, together with a redescription of *E. viridis* Hine. Both species are strongly marked and easily recognizable. There is also added a table for the separation of the western species. The only name occurring in it besides these two new species and the four mentioned and described in the preceding paper is *atrovirens* Lw., which I have collected in the vicinity of Moscow, Idaho.

Ephydra auripes new species.

Male.—Opaque green, the front except orbits and ocellar triangle, and the posterior half of the mesonotum with the scutellum, intensely shining blue-green or bronze-green; legs dark green, all the tarsi wholly golden yellow.

Ocellar triangle and wide frontal orbits velvet-black, rest of front intensely shining blue-green, three fronto-orbital bristles curving over the eye, besides the outer vertical bristle which does the same; antennæ small, black, second joint robust, third small, arista with only slight and faint plumosity, prominence of face very high, long and vertical in front, with a nearly bare spot above the prominence and just below the antennæ, which is sub-shining blue, the rest of the face whitish pollinose, hairy, with small bristles along the mouth and a slight row of bristly hairs across the upper part. Proboscis and palpi blackish-green.

Thorax semi-opaque greenish, changing to brilliant bronze-green behind; at the sides the change comes suddenly at the suture, on the disk gradually and farther back; scutellum also brilliant bronze-green. Chatotaxy of thorax normal, the bristles well developed. Pleuræ opaque, one rather strong bristle in the row of bristly hairs on the hind edge of the mesopleura; one sternopleural; knob of halteres bright yellow.

Abdomen sub-shining metallic blue, fifth segment nearly a half longer than the fourth, hypopygium very small and retracted.

Legs opaque greenish-black, knees hardly yellowish, tarsi strongly contrasting deep yellow, only the tip of the last joint a little infuscated; claws black, long and straight.

Wings of ordinary appearance, veins rather pure yellow near base.

Length 3.6 mm.; of wing 3.5 mm.

A single male, Garfield, Utah, July 9, 1911. The specimen was not recognized as different from *subopaca* until after the work of the day was finished, and I am unable to state just where I got it. I collected along brackish water from Smelter station west and north to the shore of Great Salt Lake, and captured the specimen in that small region.

The species has so many good marks of distinction that it will be recognized without difficulty.

Ephydra viridis Hine.

Cania virida Hine, Ohio Naturalist, IV, 65.

A large, robust, dull-green species with yellow knees, a deep depression in the front just anterior to the oceller triangle, and ornamented hind tarsi in the male.

Male.—Front shining dark green except the wide orbits and the ocellar triangle, which are seal-brown pollinose; a deep depression just in front of the foremost ocellus; a few minute hairs on the shining portion of the front, and on the lower corners one pair of bristles, curved toward each other; the frontal orbits bear two pairs of f. o. bristles bending outward over the eyes, and a few hairs extending down to the face. Antennæ black, third joint large, arista with distinct, short plumosity. Face moderately prominent, convex in profile, covered with brown pollen; the antennæ are wide apart, and the space below them is only a little less pollinose; hairs of face coarse, with a row of little bristles across above and another along the oral opening. Sides of face, cheeks and back of head with brown pollen; below the eye a bare space extends to the mouth, and behind this is a large bristle on the edge of the mouth, behind which the beard begins.

Thorax dark shining green, with a little thin brown pollen; hairs rather small, bristles strong, chaetotaxy normal except that there is no post-humeral (interhumeral); pleuræ with a little more pollen, which becomes olivaceous on the sternopleura; one large bristle and a few small ones on the posterior edge of mesopleura; calypter moderately large, yellow and with brownish yellow hairs; halteres yellow.

Abdomen green, sub-shining, fifth segment nearly a half longer than fourth, hypopygium very small and inconspicuous.

Femora and tibiæ all sub-shining greenish-black, the knees decidedly yellow, trochanters sometimes a little yellow; front and middle tarsi of plain

structure, more or less yellow at base; hind femora incrassated, with long hairs below near base, their tibiae noticeably curved, long-hairy on the inner side toward the end, shining black on the apical half of the hind and inner side; hind tarsi short, with the usual brush of yellow hairs below on three joints and a few long hairs above, directed mesially: fourth joint a little longer than the third, with a process toward the apex on the inner side, which bears a conspicuous tuft of black hair; fifth joint normal.

Wing brownish, veins brownish-yellow at base, costa a little spiny, hind crossvein somewhat oblique and bicurved.

Length 6.2 mm.; of wing 5.6 mm.

Female.—Greatly resembling the male in all points but the hind femora scarcely thickened, the hind tibiae nearly straight, the hind tarsi a little longer than in the ♂, plain, with only three or four bristles above. Length 6.5 mm.; of wing 5.6 mm.

Five males and one female, collected on the salt marshes of San Francisco Bay, Cal., adjacent to Palo Alto, April 20 and 26, 1906. I searched in vain for additional material in August, 1911. Nothing is known about the life history.

This species was originally described from Brownsville, Texas. The generic reference might be argued either way, as the claws are not very straight, and very minute pulvilli are present. Hine's description is meager, and I did not suspect the identity of my material until I learned from E. T. Cresson, Jr., to whom I sent part of it, that he had compared it with the types of *viridis* and found them identical. I have therefore given a fuller description of the species.

TABLE OF SPECIES.

The described species of *Ephydra* from the region of the Rocky Mountains and westward may be tabulated as follows:

1. With 6 dorsocentrals; a large gray opaque species, front hairy and with several bristles inclined mesially on the lower part..... *hians* Say.
With 5 dorsocentrals: front with 1 pair of small bristles below, inside the orbitals, or with none 2
2. Frontal orbits shining; 3d joint of antenna with a long erect hair on outer side..... *atrovirens* Loew.
Frontal orbits pollinose; 3d joint of antenna without such a hair 3
3. Tarsi bright yellow, contrasting with the black-green femora and tibiae.
auripes Aldrich.
Tarsi not contrasting with tibiae 4
4. Very large bronze-green species with yellow knees; ♂ with a conspicuous tuft of hairs on inner side of 4th joint of the hind tarsus. *viridis* Hine.
Not as described; ♂ not ornamented 5

5. Very small opaque gray species with shining front; the hind crossvein rectangular to the costa *gracilis* Packard.
The hind crossvein oblique to the costa 6
6. Femora yellow (in western specimens almost always); inland species.
subopaca Loew.
Femora blackish; occurs only adjacent to tide-water of the Pacific.
millbrae Jones.

NEW ITONIDIDÆ (DIPT.).

BY E. P. FELT,

ALBANY, N. Y.

The species described below comprise some of the more interesting forms recently submitted for study. This is especially true of the remarkable *Johnsonomyia* and the *Camptomysia*, the latter being the only female representative of this genus we have seen.

Campylomyza truncata Felt.

Male.—Length 1 mm. Antennæ a little longer than the body, thickly haired, reddish brown; 14 segments, the fifth with a stem as long as the pyriform basal enlargement, which latter has a length twice its diameter, obtusely rounded. Palpi; first segment broadly oval, second quadrate, with a length twice the diameter, third roundly quadrate, shorter than the second, the fourth $\frac{1}{2}$ longer than the third, more slender. Mesonotum and scutellum dark reddish brown, postscutellum and abdomen a little darker. Halteres yellowish basally, fuscous apically. Legs mostly fuscous yellowish, the distal tarsal segments darker; claws stout, strongly curved, denticulate, the pulvilli as long as the claws. Genitalia; basal clasp segment very short, broad; terminal clasp segment stout and quadrately rounded apically; dorsal plate short, broad, the very short lobes obliquely truncate. Harpes stout, truncate, the distal margin and latero-distal spines heavily chitinized. Type Cecid 1404.

This species, near to *C. flavoscutata* Felt and *C. modesta* Felt, was collected April 17, 1910, by Dr. W. G. Dietz, Hazelton, Pa.

Corinthomyia gracilis, new species.

Male.—Length 1.5 mm. Antennæ extending to the 4th abdominal segment, sparsely haired, dark brown; 14 subsessile segments, the fifth with a stem $\frac{1}{2}$ the length of the cylindrical basal enlargement, which latter has a length nearly twice its diameter and 4 or 5 short, stout whorls; terminal segment reduced, tapering, with a conical appendage apically. Palpi; first segment broadly oval, the second rectangular, with a length over twice its diameter, the third $\frac{1}{2}$